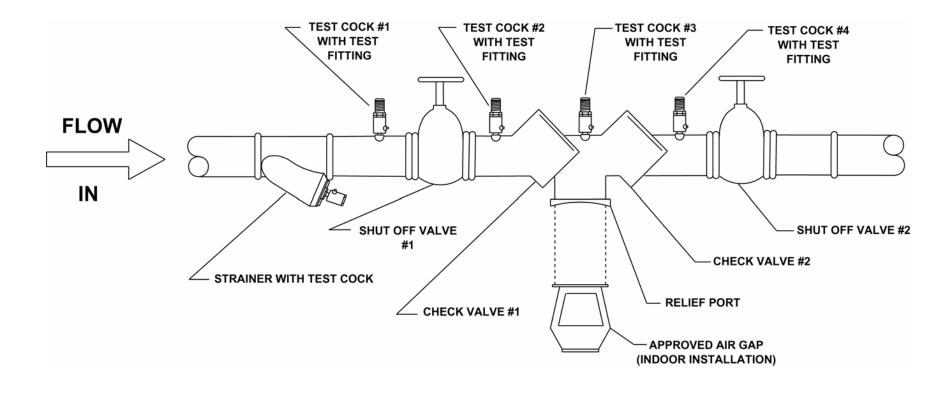
MURFREESBORO CROSS CONNECTION CONTROL INSTALLATION SPECIFICATION

Reduced Pressure Backflow Prevention Device

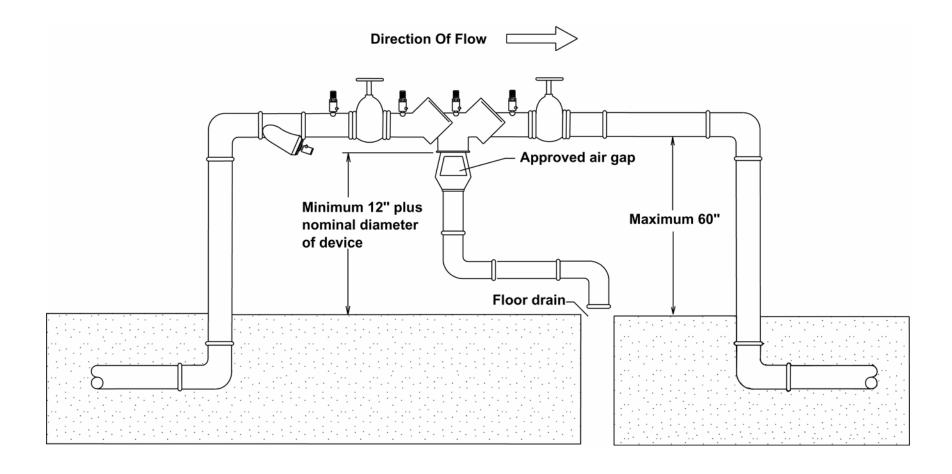
- 1) A person certified by the Tennessee Department of Environment and Conservation, Division of Drinking Water, or its successor must install all required devices pursuant to Murfreesboro City Code 33-18 and 33-22. Evidence of current certification will be required.
- 2) All devices shall be installed in accordance with the manufacturer's installation instructions, and shall possess all test cocks and fittings required for testing the device. All fittings shall permit direct connection to department test devices.
- 3) The entire device including test cocks and valves shall be easily accessible for testing and repair.
- 4) Reduced Pressure Backflow Prevention devices shall be located a minimum of twelve (12") inches plus the nominal diameter of the device above the floor surface. Maximum height above the floor surface shall not exceed sixty (60") inches.
- 5) Clearance of device from wall surfaces or other obstructions shall be a minimum of six (6") inches.
- 6) Devices shall be protected from freezing, vandalism, mechanical abuse, and from any corrosive, sticky, greasy, abrasive, or other damaging environment.
- 7) Devices shall be positioned where discharge from relief port will not create undesirable conditions.
- 8) An approved air-gap shall separate the relief port from any drainage system.
- 9) An approved strainer, fitted with a test cock, shall be installed immediately upstream of the backflow device or shut-off valve.
- 10) Devices shall be located in an area free from submergence or flood potential.
- 11) A gravity drainage system is required on all installations. Generally, below ground installations will not be permitted. On certain slopes, where installations below ground level may be permitted, a single or multiple gravity drain system may be used provided that the single drain line is at least four (4) times the area of the relief port or that the multiple drain lines are at least two and one-half (2½) times the area.
- 12) Duplicate units, installed in parallel, shall be provided in cases where the water supply cannot be interrupted for routine testing and maintenance of a single unit installation.

NOTE: Only devices approved by the Tennessee Department of Environment and Conservation may be used for protection against backflow hazards.

Detail of Reduced Pressure Backflow Prevention Device - Typical

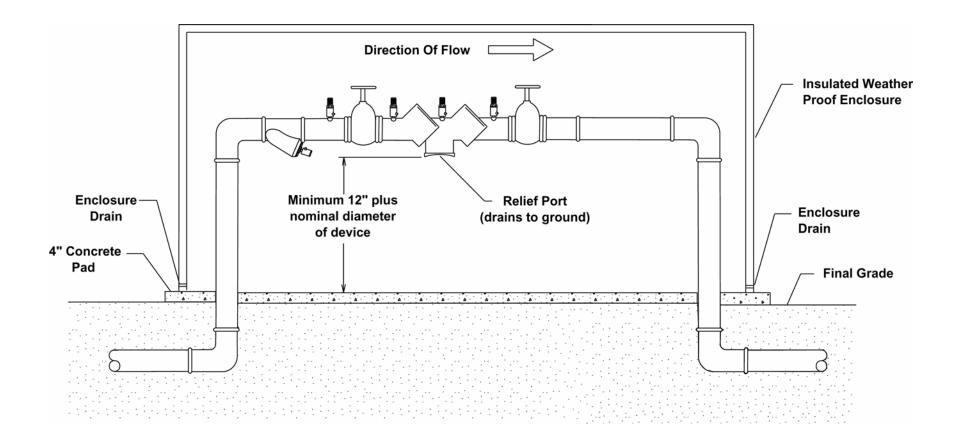


Detail of Reduced Pressure Backflow Prevention Device - Indoor Installation



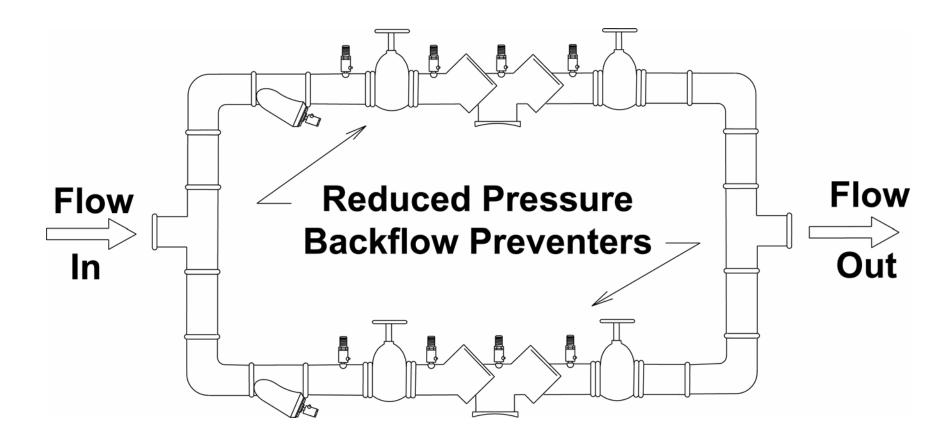
Installation Criteria - RPZ.doc August 5, 1993

Detail of Reduced Pressure Backflow Prevention Device - Outdoor Installation



Installation Criteria - RPZ.doc August 5, 1993

Detail of Reduced Pressure Backflow Prevention Device - Dual (Manifold) Installation



Note: On dual installations, all minimum and maximum clearances must be met. On installations where one device is above the other, the clearance between the upper and lower device must also meet minimum clearance (12" plus the device diameter). The use of a single strainer is acceptable on dual units when approved by the Department.

Installation Criteria - RPZ.doc August 5, 1993